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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,738	09/08/2000	Junji Otani	NV/P-22090/A	3187
324	7590	11/10/2004	EXAMINER	
CIBA SPECIALTY CHEMICALS CORPORATION			YAMNITZKY, MARIE ROSE	
PATENT DEPARTMENT			ART UNIT	
540 WHITE PLAINS RD			PAPER NUMBER	
P O BOX 2005			1774	
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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/657,738

Applicant(s)

OTANI ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004 and 12 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) 14-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. This Office action is in response to applicant's amendment received August 25, 2004, which amends claims 7 and 13.

Claims 7 and 13-17 are pending.

2. The rejection of claim 7 under 35 U.S.C. 112, second paragraph, as set forth in the Office action mailed June 03, 2004, is overcome by applicant's amendment of claim 7.

3. The claims remain subject to an election of species. Claims 7 and 13 continue to read on the elected species.

Claims 14-17 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 28, 2003.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jost et al. (4,585,878).

Jost et al. generically disclose N-substituted diketopyrrolopyrroles encompassing compounds within the scope of present claims 7 and 13. For example, see column 1, line 5-c. 4, l. 68. With respect to R<sub>1</sub> and R<sub>2</sub> in Jost's formula (I), Jost teaches that compounds in which these variables are naphthyl which is unsubstituted or which carries substituents that do not confer solubility in water are of particular interest (see c. 4, l. 63-68). With respect to R<sub>3</sub> and R<sub>4</sub> in Jost's formula (I), alkyl groups having 1-12 carbon atoms, and benzyl which may be substituted by halogen or by alkyl groups having 1-12 carbon atoms are among the preferences taught by Jost (see c. 5, l. 41-47). As taught at c. 9, l. 30, Jost's compounds are fluorescent.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make various compounds within the scope of Jost's formula (I) in order to provide compounds useful for Jost's purposes. One of ordinary skill in the art would have reasonably expected that compounds within Jost's formula (I), and particularly those having the preferred groups taught by Jost, would be useful for Jost's purposes. It is the examiner's position that compounds within the scope of present claims 7 and 13 would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention given Jost's disclosure because these compounds have preferred groups taught by Jost.

The fourth (last) formula in present claim 13 represents a compound of Jost's formula (I) wherein R<sub>1</sub> and R<sub>2</sub> are each unsubstituted naphthyl, and R<sub>3</sub> and R<sub>4</sub> are each C<sub>1</sub>-alkyl.

The first three formulae in present claim 13 represent compounds of Jost's formula (I) wherein R<sub>1</sub> and R<sub>2</sub> are each unsubstituted naphthyl, and R<sub>3</sub> and R<sub>4</sub> are each a benzyl group substituted by one or more C<sub>1-4</sub> alkyl groups.

With respect to compounds within the scope of present claim 7, Jost's teaching that  $R_1$  and  $R_2$  in Jost's formula (I) may be naphthyl groups which carry substituents that do not confer solubility in water, and Jost's disclosure of substituents that do not confer solubility in water as being substituents such as halogen atoms, alkyl groups ("particularly preferably 1 to 4, C atoms"; c. 1, l. 54),  $-OR_8$ ,  $SR_8$ , cyano and other groups meeting the limitations of  $R_6$  and  $R_7$  as defined in present claim 7, clearly suggest compounds of present formula I wherein each of  $Ar_1$  and  $Ar_2$  stand for a substituted naphthyl group (either of the first two formulae set forth in the definition of  $Ar_1$  and  $Ar_2$  wherein at least one of  $R_6$  and  $R_7$  is other than hydrogen). Jost's teaching that  $R_3$  and  $R_4$  in Jost's formula (I) can be alkyl groups having 1-12 carbon atoms, or benzyl which may be substituted by halogen or by alkyl groups having 1-12 carbon atoms, suggest compounds of present formula I in which each of present  $R_1$  and  $R_2$  represent a substituent such as an alkyl group having 1-12 carbon atoms or  $-CH_2$ -phenyl which may be substituted by alkyl or halogen.

6. Applicant's arguments filed August 25, 2004 have been fully considered but they are not persuasive.

The examiner maintains the position that the data set forth in the JP '078 document are insufficient to demonstrate superior/unexpected results of the presently claimed compounds commensurate in scope with claims 7 and 13 compared to the prior art of Jost et al. for at least the reason that the data pertain to the use of diketopyrrolopyrroles in electroluminescent (EL) devices. The property relied upon as demonstrating unexpected superiority over the Jost patent is electroluminescent intensity, which is the intensity of light emitted from a device comprising a

layer comprising diketopyrrolopyrrole sandwiched between a pair of electrodes. The present claims are drawn to compounds, not to an electroluminescent device. Jost's compounds are disclosed as fluorescent compounds suitable for uses such as dyeing polymers. The data in JP '078 do not demonstrate that the present compounds have unexpectedly superior properties when used for the purposes taught by Jost et al.

Applicant argues that Jost does not present any data regarding the compounds of the present invention and fails to point toward their selection for any use. While Jost does not present any data with respect to specific compounds within the scope of present claims 7 and 13, one of ordinary skill in the art would reasonably expect such compounds to be fluorescent based on Jost's teachings. The examiner respectfully disagrees with applicant's argument that Jost fails to point to selection of compounds of the present invention for any use. Jost clearly suggests that such compounds are suitable for the purpose of Jost's invention and points to such compounds in the teachings regarding preferences.

7. The reference made of record and not relied upon is considered pertinent to applicant's disclosure.

Murase et al. (US 6,805,978 B2) disclose diketopyrrolopyrrole compounds represented by present formula I wherein each of Ar<sub>1</sub> and Ar<sub>2</sub> is a naphthyl group as in present applicant's elected species. For example, see columns 39-44 and 51-59. The first formula in c. 56, the second formula in c. 52, and the last formula in c. 51 represent the compounds represented by the second, third and fourth formulae in present claim 13, respectively. Murase et al. also claim an

electroluminescent device comprising a diketopyrrolopyrrole compound within the scope of present formula I. See the patent claims 6-9. However, the patent to Murase et al. does not represent prior art.

8. The examiner acknowledges receipt of an IDS, received October 12, 2004, and copies of the following two references: EP 0 456 610 A1, published 11/1991, and EP 0 542 669 A1, published 05/1993. The IDS cover letter indicates that a PTO-1449 was submitted as part of the IDS. The PTO-1449 is currently not scanned into the IFW. The examiner has requested the contractor to check the original IDS and scan the PTO-1449, if present. The examiner is uncertain whether the form was submitted but not scanned, or not submitted.

Applicant is hereby notified that the examiner has considered EP 0 456 610 A1 and EP 0 542 669 A1. If the PTO-1449 for the IDS of October 12, 2004 has not been scanned into the IFW at the time of the next Office action, the examiner will list these two EP references on a PTO-892.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
November 09, 2004



MARIE YAMNITZKY  
PRIMARY EXAMINER

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